



**Population Health  
Research Institute**

HEALTH THROUGH KNOWLEDGE

**B-FREE**

# **Benzodiazepine-free Cardiac Anesthesia for Reduction of Postoperative Delirium (B-Free)**

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# Study question



Does an institutional policy of limited intraoperative benzodiazepine use reduce incidence of delirium after cardiac surgery?

## Cluster Crossover

- Hospital = cluster
- Hospitals are randomized to use one of the two policies for each of 12, 4-week crossover periods
- All patients undergoing cardiac surgery during the study period are included in the trial

# Study Interventions



## Limited Benzodiazepine Policy

- No routine administration of any benzodiazepines during cardiac surgery
- Accepted administration of benzodiazepines according to anesthesiologist discretion
- (Expected administration of benzodiazepines to 10% of patients)

## Liberal Benzodiazepine Policy

- Administration of 0.03 mg/kg Midazolam equivalent during cardiac surgery
- Accepted avoidance of benzodiazepine administration according to anesthesiologist discretion
- (Expected avoidance of benzodiazepines to 10% of patients)

# Study Outcomes

## Primary Outcome

Incidence of delirium in  
CVICU

## Secondary Outcomes

ICU LOS

Hospital LOS

In-hospital mortality